PULUC

FOR THE PSION SERIES 3

CYNINGSTAN

Contents

Chapter 1

Introduction

Puluc, sometimes known as *Bul*, or *Bool-ik*, is a board game associated with the Mayans. Although this association is unproven, it was played by the Q'eqchi' people in around 1900, and resembles an unknown game the Mayans etched into stone. Puluc is well loved by those who learn of it.

The game is a *war game*, or more specifically, a *running fight* game: this type of game is a battle played on a 1-dimensional board with dice. It might look like a simple version of backgammon, but the objective is for each player to capture and kill all of the opponent's pieces, putting it more in the realm of draughts or chess.

This version of *Puluc*, for the Psion Series 3 pocket computer, brings together a number of different variants of the game. Players can choose from a known variant, or devise their own, by setting a number of individual rules before the game begins.

Play can be between a player and the Psion, or between two human opponents. The Psion can play at three different levels of expertise. The program keeps score, and by saving separate game files, one can keep score of different variants of the game, or of games against a particular friend.

The rest of this manual tells you how to set up the game, how to

play it, how to experiment with the different variations, and finally
gives a history of the game as we know it.

Chapter 2

Getting Started

Puluc runs on the original Psion Series 3 with 128K or 256K RAM.
It is best installed on a Flash or RAM SSD to save internal memory,
especially on 128K models. The game also runs in compatibility
mode on the Psion Series 3a, 3c, 3mx, and on the Siena and Work-
about.

2.1   Installing the Game

Figure 2.1: Using Psion-I to install Puluc on the Series 3.

With your usual method of transferring files to the Psion (MCLINK, PsiWin, Comms, etc.) copy the `PULUC.OPA` file to the `\APP\` directory on your preferred drive. Then make a directory `\APP\PULUC\` and copy all the other files into there.

With the game present on your machine, go to the System screen and press Psion+I to install the game's icon there. Remember to set the drive to wherever you installed the game files so that the Puluc application can be found. Once done, there will be a new icon and file list on your System screen.

2.2   Launching the Program

Figure 2.2: The Puluc icon on the system screen.

Puluc is a fully EPOC compliant application that can operate on multiple saved game files. Initially there are none, so selecting Puluc under the Puluc icon will begin a new game. If in future you have multiple games in progress, their names will be listed under the Puluc icon, and you can instantly load one of them in the same way you open a database or document.

Figure 2.3: Setting up a new game.

2.3 Setting Up a Game

On loading Puluc for the first time, you will see the title screen, and after that you will see the New Game setup window. This allows you to select the opponent, and select various aspects of the game rules allowing different variations of Puluc to be played. For your first game, as described in the next chapter, leave these settings as they are and press `Space` or `Enter` to accept them. The game will start.

Chapter 3

Playing the Game

When you accept the game settings, you will see the board, set up with pieces. Casting sticks are thrown by each player to determine who moves first. Once this is decided, the first player takes their turn.
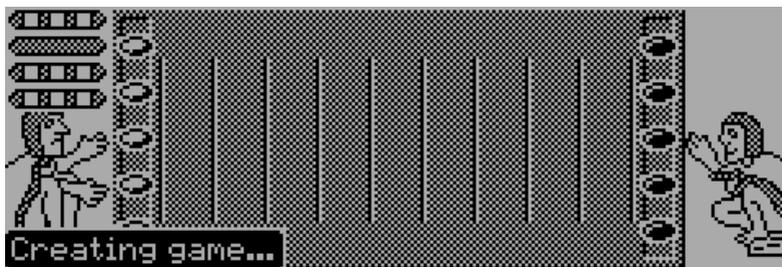
3.1 Initial Setup

Figure 3.1: Players throwing to see who moves first.

While the sticks are being thrown, let's take a look at what's on the

screen. The board in the middle of the screen is separated into eleven spaces. The space at each end is distinguished by a depression; these are the players' *cities*. The nine spaces in between the cities are plain, and these form the *highway* between the two cities.

In this program, the player on the left is referred to as *Jade*, while the player on the right is referred to as *Obsidian*. Jade is always played by a human. Obsidian may be played by a human or the Psion.

Each player starts with five pieces in their city. Jade's pieces are white, although on the Psion screen white is an appropriate greenish colour. Obsidian's pieces are black, like the stone itself. While in their home city, pieces are safe from capture.

Images of the players decorate the space beyond each end of the board, taken from the Codex Magliabechiano, one of the few surviving works of the Mayans. The space above the players' heads is where each player throws their casting sticks.

By the time you read this, the casting sticks should have decided who is moving first. If the computer was awarded the first move, it will have thrown the sticks and moved a piece, which will be shown outside of its city. In any case, a rectangular cursor highlights Jade's home city. While reading this, you might have missed the brief message "Jade to throw".

3.2   Casting the Sticks

When it is your turn to throw, the sticks are not visible, as you're holding them in your hand. Throw them using the *Throw* option on the menu, whose shortcut key is T. After a short pause, the four sticks will appear above the Jade player's head.

Each stick is plain on one side, while the other side is marked with white bands. The value of the throw is the number of sticks with white bands visible. If all the sticks show their plain side, and there are no white bands showing, then the value of the throw is five, not zero.
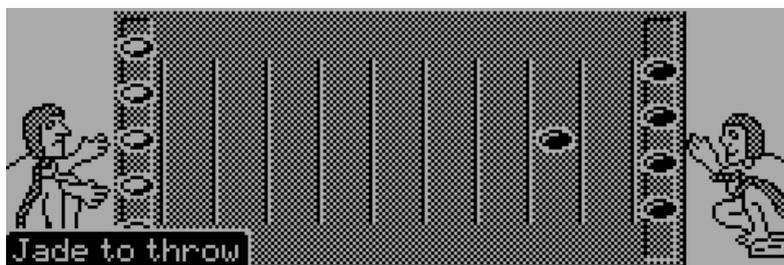
Figure 3.2: Obsidian moved first. It is Jade's turn to throw the sticks.

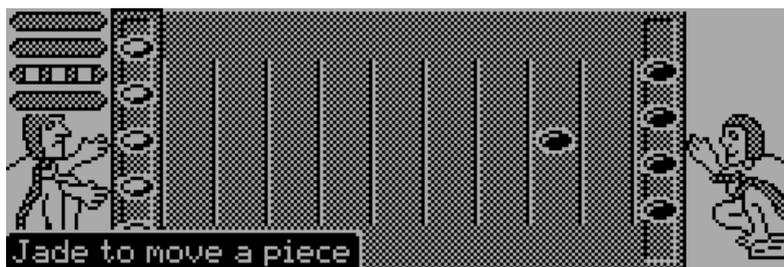## 3.3 Moving, Capturing and Slaying Pieces

Figure 3.3: Jade threw a one, and must now move a piece.

Once the casting sticks have been thrown, a piece must be moved according to the value of the throw. At the start of the game, this means moving one of your pieces out of the city, and advancing it along the highway by the number of spaces the casting sticks show. To do this, ensure the cursor is highlighting your city and use the *Move* option from the menu, or its shortcut key M. When this is done, your turn is over and the computer takes its turn.

After throwing the sticks on your next turn, when you have a piece on the highway, you have the option to move that piece further

along the highway, or send a new piece out from the city onto the
highway. To move a piece that's on the highway, move the cursor
over to it with the cursor control keys, and select *Move* as before.

You cannot double up your pieces by landing one on another. So
if you threw a two in your first turn, moved a piece, and threw a
two again, you cannot move a second piece onto the occupied space,
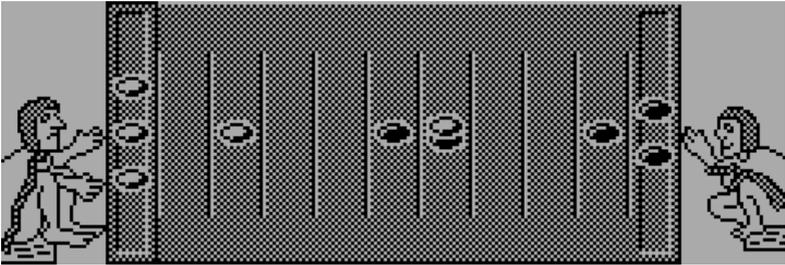you *must* move the piece that was already on the highway.

Figure 3.4: Jade has captured a piece, and must now slay it.

As the two opposing players' pieces close in on one another, one
player will eventually get a throw that would land their piece on the
enemy piece. You *can* land on a space occupied by an enemy piece,
and doing so captures the piece. The captive stays where it is, while
the captor lands on top of it, forming a stack. On subsequent turns
this stack moves along the highway together, the captor draggin the
captives along with it as it moves as usual according to the throws.

You can also land on a stack captured by an enemy, even though
it includes your own pieces. Your piece or stack then sits atop the
pieces it landed on, and will carry everyone, friend or foe, along
with it as it continues its journey on subsequent turns. So stacks
can reverse directions numerous times, growing larger and larger as
it is captured and recaptured during the course of the game.

If a stack reaches or passes the enemy city, then the captured
enemies are *slain.* Those enemies are stacked up in the captor's cor-
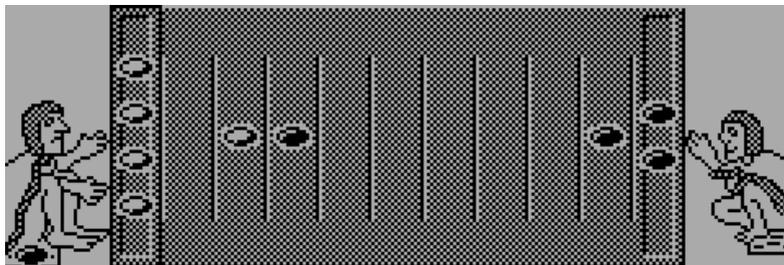ner of the screen, forming a pile of slain pieces beside the captor's

Figure 3.5: Jade has slain an obsidian piece, whose remains sit next to the Jade player image.

image. The captor's own pieces all return immediately to their own city, ready to begin their journey anew. A single piece may sometimes reach or pass the enemy city safely without having captured or being captured, in which case it too returns immediately to the home city.

3.4 Winning the Game

Figure 3.6: Jade has captured Obsidian's last pieces and wins the game.

Eventually there will come a time when one player has captured or slain all of the enemy pieces, leaving the enemy with no pieces to

move. That player wins the game. You'll never see all five of the
loser's pieces in the pile of slain pieces, because the last capture ends
the game; the outcome is known and there is no need to drag the
captive to their inevitable death.

Figure 3.7: Jade's victory is counted on the score table.

When a player has won, a victory message is superimposed over
the board. At this time, you can view the scores by selecting *Scores*
from the menu, or using the shortcut key C. Pressing Escape dis-
misses the score table. At this point, you can exit the game (*Exit*
on the menu, shortcut X) or proceed to another game (*Proceed*, P).

Before departing this chapter there is a useful hot key to be
discussed: the Space bar or alternatively, the Enter key. When it
is your turn to throw, this selects the *Throw* option to throw the
sticks. When you are to move a piece, it selects the *Move* option to
move the piece(s) highlighted by the cursor. When you must pass,
it selects the *Pass* option. When the game is won, it selects the
Proceed option to start the next game. The key also confirms the
settings for a new game and selects the *Proceed* option. It is a very
handy shortcut, but be sure you know what the program is waiting
for before you press it!

Chapter 4

Rules, Variations and Preferences

The game described in the previous chapter uses the most commonly reproduced rules for the game. But there are many variations that can be played, making the game more or less strategic, and changing its character a great deal. There are also some options that might make play go more smoothly.

When starting a new game, you have the opportunity to choose the opponent, select the rules, and set up some preferences. This chapter examines those options.

4.1 Computer Difficulty and Human Opponents

The first line of the game settings table, labelled *Human vs.:*, allows you to decide who to play against. There are three levels of Psion opponent to choose from, and you can also play against a friend using the Psion as a game set.

Figure 4.1: When you're more confident at the game, you can select a harder opponent.

Easy Psion is the default level for new games. Its moves are unintelligent and completely random, although always legal according to the rules. It will, however, prioritise capturing or slaying your pieces over less violent moves. When playing a new variation of the game it's a good idea to start by playing against the Easy Psion, so that the lessons you learn are not always brutal.

Fair Psion is more intelligent. Like the Easy Psion, it will prioritise captures But when no capture is available, it will move more intelligently, preferring to move into squares where its pieces are in less danger of being captured. It will therefore keep its pieces back, trying to force you to move into harm's way.

Hard Psion, like the Easy Psion, will always prioritise capturing or slaying your pieces. Like the Fair Psion, it will hold its pieces back and avoid charging into danger. But in addition, it will consider the danger its pieces are already in, and move a piece out of danger even if tamer moves are available.

Human allows you to play against a friend. You will want to decide beforehand which of you plays Jade and who plays Obsidian. Players should both sit in view of the Psion's screen, as there is no hidden information and each player will want to see what their opponent does. If you like the game, it's recommended that you invest in a physical board and pieces, as real life has better graphics

than the Psion Series 3.

4.2   Bell's Casting Stick Values

Figure 4.2: Selecting Bell's casting stick values. These settings as a whole reflect Bell's rules.

The *Throws* setting allows you to choose between two subtly differ-ent ways of counting the casting sticks: *Culin* and *Bell*. The default values of the throws, described in the previous chapter, were ob-served by the ethnographer Stewart Culin. But a subtly different version was published by the author Robert Charles Bell, who got his information from observations by Karl Sapper.

In Bell's rules, the throw values are the same apart from one: if only one marked side is showing on the casting stick, then the throw value is zero, and the player must miss a turn. While this sounds more tiresome than fun, it adds a new strategy: spaces on the board immediately ahead of an enemy are safer, since the enemy will never move a piece by one space along the highway.

If you play with this rule variation and need to pass, there is a *Pass* option on the menu, using the shortcut key P. Passing can be made less tiresome through the preferences: see later.

4.3   Dragging Captives Backwards

Figure 4.3: Selecting backward-moving captures. These rules as a whole are close to what Culin records.

The *Captures* setting allows you to decide the direction in which captives are dragged. In the default rules, as taken from R. C. Bell, a captor drags its captive pieces forwards to the enemy city, to slay them in sight of its walls. But the game is often played with the captives being dragged backwards, to be slain by sacrifice at the captor's home city.

This variation introduces a change in strategy. When captives are dragged *Forward*, the danger increases as they approach the enemy city. Enemy pieces can be sent out from the city to more easily rescue them as they approach. When captives are dragged *Backward*, they recede from their comrades, who must put some effort to giving chase if the captives are to be rescued.

4.4   Keeping the Army Small

The *Pieces* setting allows you to determine how many pieces each player can have advancing on the highway at a time. The default is all five, offering unrestricted warfare. Historically the game was often played as a game of pure luck, with each player having only

Figure 4.4: Selecting a maximum of 2 pieces advancing. These settings are close to P. S. Neeley's "Ritual Warfare" variant.

one piece out on the highway; the player can only advance another piece if their original piece is captured or slain.

In his game *Ancient Mayan Bul* for Windows, P. S. Neeley offered a variation where two pieces can be advancing on the highway at once, giving the player some element of choice, but making them think carefully about when to advance a second piece out on the highway. For completeness, options for three and four pieces are offered.

4.5   A Looping Highway

The *Highway* option determines the nature of the highway. By default it is *Finite*, and when a piece reaches the enemy city, its tour of duty is done and it returns to the home city. But there is also a *Looping* option, which treats the highway as if it were infinite.

When using Looping, a piece on the last space of the highway will not return home when it advances, but continue on its path looping around to the first square on the highway. Only when carrying captives will a piece reaching the end of the highway be rewarded by a safe rest in their home city.

Figure 4.5: Selecting the looping highway.

4.6   Preferences

Figure 4.6: The Preferences dialog.

There are some extra options that do not affect the rules of the game, but instead just affect the game play interface. These are *Auto Throw* and *Auto Move*.

When *Auto Throw* is set to Yes, the program does not wait for you to press T to throw the sticks, it does it automatically.

When *Auto Move* is set to Yes, and you have only one available move, then the program will do that for you automatically. Some players cannot bear to move their last piece into the enemy's path... The *Auto Move* option will also pass your turn for you if you have

no valid moves.

Both of these options are set to *No* by default. It is recommended that you leave them off when you are learning a new variant of the game. When you are not fully familiar with the rules, it can be confusing having the program make moves for you.

A final option in the Preferences dialog allows you to reset the score table. Highlight this row of the dialog and press `Enter` to clear the record of your embarrassing losses.

Chapter 5

History

The identification of Puluc with the Mayans stems from two facts. One is that the Q'eqchi' people, who played this game, are descendants of the Mayans. The other is that the ethnographer Stewart Culin identified the game as pre-Columbian, due to its lack of resemblance to any games introduced to America by the Europeans.

Culin described the game in a publication of 1907, "Games of North American Indians". Here Culin describes a game of fourteen spaces (sixteen if you count the cities), played between two, or between two teams of equal numbers. The game Culin describes is one of luck only: each player may only have one piece advancing on the highway at a time, and may not choose to enter another unless that piece is captured. The pieces drag their captives back towards their own home city.

A year before Culin's publication came one in German by Karl Sapper in the Boas Anniversary Volume, a collection of articles in honour of anthropologist Franz Boas. This was translated into English in Robert Charles Bell's 1960 volume "Board and Table Games". This version has the familiar eleven space board, and allows players to advance as many pieces along the highway as they wish, introducing some strategy. The captives in this game are dragged

to their own city to be slain. This version also has the player miss their turn on a throw of one.

The rules popularised nowadays are mostly taken from R. C. Bell's account, although few include the missed turn on a throw of one. These rules have been adapted to computer format a number of times, although not to the Psion Series 3 before now. A version for Windows by P. S. Neeley introduced a variant taking some aspects from both Culin's and Bell's games: prisoners being dragged backwards, and a limit of two pieces per player advancing along the highway.

Given the simplicity of the game, and the number of variations, it has not attracted much commentary on strategy as has, say, backgammon. It is uncertain which variant introduces the most strategy to the game, which is one reason that this version allows rules to be tweaked individually.

Chapter 6

Acknowledgements

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